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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,481	01/08/2002	Yaacov Almog	1149/63502	1737

23838 7590 04/08/2002

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 04/08/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,481

Applicant(s)

ALMOG, YAACOV

Examiner

Christopher D RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 4-8 and 14-29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION***Priority***

If applicant desires priority under 35 U.S.C. 120 based upon a previously filed copending application, specific reference to the earlier filed application must be made in the instant application. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No. _____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

If the application is a utility or plant application filed on or after November 29, 2000, any claim for priority must be made during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2) and (a)(5). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) a surcharge under 37 CFR 1.17(t), and (2) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Commissioner may require additional information where there is a question

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whether the delay was unintentional. The petition should be directed to the Office of Petitions, Box DAC, Assistant Commissioner for Patents, Washington, DC 20231.

Claim Objections

✓ Claims 4-8 and 14-29 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiply dependent claim. See MPEP § 608.01(n). Accordingly, the claims 4-8 and 13-29 have not been further treated on the merits.

✓ Claims 11-13 are objected to because there is not sufficient antecedent basis for "the mixture" in the preceding claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 3 are indefinite because it is unclear how the phrase "which is otherwise suitable for use as a toner material" limits the core material. The "use" would appear to directly affect the core materials included within the scope of protection sought by applicant. "Use" would include the ability of the material to fix by heat fusing or flash fusing, its ability to color, and its ability to be attracted to an electrostatic positive or negative charge, among others. It is unclear which "uses" conventionally (or possibly non-conventionally) employed for a toner limit

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the core material of the claims. These uses are critical to defining the scope of the claimed core. The claims are thus indefinite.

It is also unclear in claims 1 and 3 what magnitude or characteristics of charge define "weakly" charged and "enhanced" charge. It appears that the enhanced charge would be greater than the "weakly" charged toner, but guidance as to the meaning of "weakly" and the relative degree of "enhanced" is not found in the specification. It is also unclear what conditions are "ordinary" in the rejected claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Tsuneda in US Patent 3,977,983.

Tsuneda discloses a process of making a liquid toner in Example 1 where a pigmented polymer particle containing carbon black, a polyester resin, and a polyterpene resin is dispersed in ISOPAR H with an ionomer (quaternary ammonium-containing resin), which is also dispersed (not dissolved) in the ISOPAR. The resin appears to coat the surface of the pigmented particle.

Also see Examples 2-9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over EPA 176 630 in view of Whitbread in US Patent 3,325,409 further in view of *Handbook of Imaging Materials* to Diamond, Metcalfe in US Patent 3,078,231, and Wagner in US Patent 3,438,904.

The European document discloses a liquid toner and method of making and using the toner. The liquid toner comprises a pigment coated with an ionomer resin such as Copolymer D. The acid groups of the ionomer may be those discussed on page 7. The ionomer enhances the chargeability of the pigment particles by giving stability to the toner charge (EP pp. 1-2). The coated pigment is dispersed in a carrier liquid. See Examples. The EP reference prepares the liquid toner by either precoating the pigment particles with the ionomer or dispersing the pigment into the carrier liquid and then adding the ionomer which appear to adsorb onto the pigment (p. 13; Examples). Because the ionomer remains on the pigment particle it appears to be insoluble in the carrier liquid at room temperature. The liquid developers are used in conventional developing processes of charging, imaging, developing, and transferring.

The reference does not disclose a pigmented polymer as in claims 1 and 9 and does not disclose a charge director as in claims 1 and 2.

Whitbread discloses a pigment used in a liquid toner which comprises a mixture of a hydrogenated rosin and carbon black or phthalocyanine blue. This pigment is dispersable in the

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carrier liquid (cols. 1-2). Because the pigmented polymer is used as a toner it appears to be chargeable to a first extent. Because the scope of the claims is indefinite concerning the "weakly chargeable" limitation, it appears that the pigmented polymer of Whitbread meets this limitation. See section 112 rejection above for claim 1.

Metcalfé discloses that pigment particles do not necessarily have the necessary and required charge for a desired development process and thus charge control agents (i.e., compounds which adjust the charge of the pigment in the carrier liquid) are coated onto the pigment to give the requisite charge (col. 1, l. 51-54; col. 1, l. 62-col. 2, l. 20).

Diamond discloses charge directors as commonly employed in the art to impart the desired charge to the liquid developer (p. 233).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the pigment of Whitbread as the pigment in the European document because Whitbread discloses the hydrogenated rosin/pigment mixture as providing high contrast images, which are scuff resistant when dried. The artisan would recognize that the resin coating in the European document is applied to the pigment to impart the desired charge to a pigment particle (paragraph spanning pp. 1-2; note a similar principle in Metcalfé) and thus the artisan would reasonably conclude that the charge on the pigment particle of Whitbread could be controlled by the ionomer resin coating of the European document. Thus the artisan would obtain by the combination high contrast images, which are scuff resistant while obtaining the charge characteristics of the European document. It would also have been obvious to add a charge director to the liquid developer because Diamond discloses charge directors as well known components to produce the desired charge on the toner. The addition of the ionomer resin to the pigment in the European document (EP p. 13) would have been expected to differ the charge polarity of the pigment because these components would change

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the surface charging characteristics of the pigment (see Wagner col. 5, l. 37-42). It would also have been obvious to heat the ionomer during the coating when the ionomer becomes adsorbed because this would enhance the ability of the ionomer to come in contact with the pigment particles and then cooling would also have been obvious in order to retain the ionomer on the pigment particle.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claim 2 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 17 of prior U.S. Patent No. 6,337,168. This is a double patenting rejection.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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Claims 1, 3 and 9-13 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of U.S. Patent No. 6,337,168. Although the conflicting claims are not identical, they are not patentably distinct from each other because the disclosure of specific chargeabilities for the pigment particle would suggest that the particles are weakly chargeable to the skilled artisan.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 703 308-3322. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

The Art Unit of this application will change to 1756 on 21 April 2002. Correspondence after this date should reference the new art unit to expedite processing.



CHRISTOPHER RODEE
PRIMARY EXAMINER

cdr
April 2, 2002